

# Kennedy Representatives

### These Dealers Sell and Service Kennedy Equipment

BARKER BROSLos	Angeles
RADIO SALES & SERVICELos	Angeles
NEWBERY ELECTRIC CORPORATION	Angelee
WHITTIER RADIO DEN	
HILBERT DRUG COLa	
KENNEDY RADIO SALES & SERVICE	
ANAHEIM IGNITION DEPOTA	naheim
EQUIPMENT SALES CO	
MILLS RADIO CORi	
MILLS RADIO CO	
KENNEDY RADIO SALES CO. (with Ford Music Co.)	
KENNEDY RADIO SALES CO. (with Brown Music Co.)F	
FALLON & COMPANYSanta E	3a rba ra
CAMPBELL MUSIC COAll	hambra
GLENDALE ELECTRIC COG	
CASNER HARDWARE CO	
E. E. EASLEYGi	
McWHINNIE ELECTRIC CO	rearo
McWHINNIE ELECTRIC CO	
PREST & DEANLong	Beach
PREST & DEANLong URNER & JANESBak	Beach ersfield
PREST & DEANLong URNER & JANESBak KENNEDY RADIO STUDIOSFu	Beach ersfield illerton
PREST & DEANLong URNER & JANESBak	Beach ersfield illerton

See dy dealer for demonstration or write us direct for the literature on the new Furniture Model sets



We are the exclusive wholesale distributors for California

### **KIERULFF & RAVENSCROFT**

Wholesale Distributors 757 SOUTH LOS ANGELES STREET

Phone 628-87

2

Los Angeles, Calif.

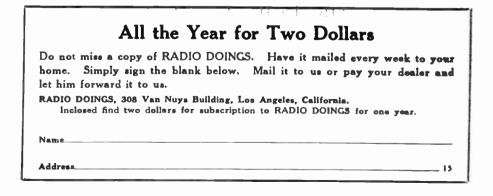
H. C. CHARLES, Editor	io Doing L. T. PERD BERRINGER, Technical Editor	JS UN, Business Manager
Adv J. C. PENLEY	vertising Representatives: J. B. SHILLINGF	080
308 Van Nuys Building	Phone 876-062	Los Angeles, Cal.
(Entered as second-class ma Post Office	atter, November 25, 1922, Los Al e, Under Act of March 3, 1879)	ageles, California
Copyright, 1 Five Cents a Copy	1923, by Horwood Publishing Co. Tw	ro Dollars a Year
Vol. III Los Ang	eles, December 1, 19	23 No. 22

# An Association for the Listener-In

Last week we asked our readers what they thought of forming an association to protect the interests of the listeners-in. We have received many replies and telephone calls endorsing the idea. We also printed in our last issue a letter from one of our readers under the heading, "An Evil That Should Be Corrected." This has also been the cause of considerable comment by the listening-in public.

The "evil" referred to in the letter mentioned above is a typical case where the proposed association could be of great help. As individuals, very little could be done to eliminate such troubles, but if a strong association, composed of the vast numbers of listeners-in, could speak with a voice that could not be ignored, results would follow.

The "evil" we speak of is the leaky transformers of the various light and power companies, not forgetting those owned and operated hy cities and municipalities. These cause a large amount of the trouble and "frying" we hear on the air and which are all too frequently thought to be "static" and amateurs. If the attention of these companies was called to these matters, and the fact that not only was it annoying many of their patrons but was also a great leak in their power, we believe the "evil" would be corrected. Let us hear from some more of our readers with their ideas.





### Transformers By FRANK D. ANDREWS Consulting Radio Engineer

An art or science is of importance to mankind in direct proportion to the benefits men derive therefrom; the appreciation of radio, and to a certain extent the pleasure arising from it, will be greatly increased by a knowledge of its principles and development. The accomplishments of the early workers, marking out the trail which was to lead to the present state of the art, make interesting reading and serve well to lay the background for discussing the work of the later scientists and inventors whose contributions are directly incorporated in the radio receiving and transmitting equipments of today.

Everyone is now becoming more or less familiar with radio communication, and it will soon be taken for granted as much as is the telephone to the average person, and the radio entertainment every evening will soon cause no more wonder or interest than do the phonograph or movies. Actually, the simple receiving set of today, picking up music or speech from a transmitting station many miles distant, represents the result of nearly a century of effort and development by scores of scientists and inventors. Before we become too complacent in the matter and take the radio telephone in the same matter-of-fact way we do the rest of our applied science miracles, it is well to take a few of the little things apart that make it go and see how the whole thing ticks.

The various parts which go to make up a radio set have gone through a long series of development before they would function with any degree of success. The only thing of interest to the owner of a radio set after this period of development is that the instrument is not defective, that it is fool-proof, and will continue to operate uniformly always.

Anything mechanical is more or less defective in some respect. Latent defects in construction which cannot be discovered until some period of use are bound to be in a small percentage at least of the articles offered for sale. But this is not the most frequent cause of an accessory not functioning correctly; the greatest defects can in most cases be traced to the improper application of the accessory or misplacing it in the set.

The discriminating buyer is going to find out all about an article before investing his good money in it. It cannot be too strongly impressed that the discriminating buyer of radio apparatus is the greatest benefactor to the industry.

If you have a radio set in your home, and friends come in, the first thing that attracts them is what they hear. The quality of what they hear—that is, the quality of music or the modulation, as we express it—measures how much interest the visitor will take in your instrument.

Quality in radio depends largely upon the characteristics of the audio frequency amplifying transformers employed. It seems that good information as to the proper transformers to use and the respective merits of the various ratios offered for sale is scarce.

Briefly, a transformer consists of a primary winding of a comparatively few turns of wire, wound on but insulated from a laminated iron or ironware core, which corries the current from the preceding instrument in the set; a secondary winding of many turns of wire wound in sections and insulated from all other parts of the transformer. It is this secondary winding which delivers the high voltage in the same proportion as the number of secondary turns is increased over the primary turns.

Transformers may be divided into two classes, depending upon the style of core used: open core and closed core transformers.

(To Be Continued)

EW Receivers there are which do not require the use of an outside antenna for maximum results.

The cheapest and most efficient way to increase the range and the volume of a set is to increase the amount of energy put into the receiver. A good ANTENNA is the answer. A good AN-TENNA properly erected adds to, rather than detracts, from the appearance of your home.

Drop in to see us, or give us a call on the phone. Let us give you an estimate—we shall be glad to send an expert to your home to help you arrange for an installation that will insure maximum results.

# The Antenna Construction Company 826 West Seventh Street

Phone 824-627

Los Angeles, Calif.

# High Power Radio

About this time there became available the undamped arc system. This system was invented by Valdemar Poulsen and Prof. Pedersen. This was in 1902. This transmitter was just emerging from the elementary stages and had not yet been developed so more than thirty kilowatts could be used.

An American radie company was formed and named the Federal Telegraph Company. These people purchased the exclusive rights in the Poulsen arc system for the United States. They also purchased two transmitters from the Danish Company, one rated at five kilowatts and the other at twelve kilowatts. The Federal Telegraph Company established a plant at Palo Alto, California, for the purpose of developing and manufacturing arc radio transmitters, and undertook the establishment of a few low-power stations on the Pacific Coast of the United States. The first two successful stations were built, one at San Francisco and the other at Heeia in the Hawaiian Islands. Reliable service was established between the United States and Hawaii through these stations, a distance of approximately 2100 miles. About this time the Navy started construction at Arlington, Virginia, of what was going to be the most powerful station in the world at that time. When completed, its signals could be heard under favorable conditions 5000 miles; that is, at night during the winter months. During all seasons of the year, day and night, the approximately range was 2000 miles. This station employed a 100-kilowatt spark transmitter and the antenna was supported by one 600-foot and two 450-foot towers.

The Federal Teiegraph Company installed at Arlington a 30-kilowatt arc transnitter to be used in tests to get comparative audibilities of signals from the 100-kilowatt spark and the 30-kilowatt arc set. Tests were made, and with a 50-ampere radiation with the arc transmitter and 100 amperes with the spark transmitter. Notwithstanding the difference in radiated energy in favor of the spark transmitter, the arc set gave a greater audibility of signals than the spark set at Colon and Key West, Florida. The signals of the arc were audible at San Francisco and Pearl Harbor, and the spark did not carry this far. These tests clearly indicated the superiority of the undamped wave system of radio telegraphy over the damped system over long distances.

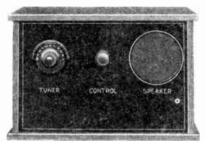
These tests influenced the United States Navy to install arc transmitters wherever long distance communication was needed. Today one of the highest powered arc transmitters in the world is located at Annapolis, Maryland.



Prest and Dean Radio Electric Co.Complete Line of Radio Sets and SuppliesColin B. Kennedy Sets—"The Royalty of Radio"742 East Fourth Street, Long BeachPhone 635-213



Jewel Concert Receiver



### Distance—Volume Quality—Selectivity

Complete in cabinet—only 2 controls battery and loud speaker within the walls. The most complete and convenient receiver on the market—and the simplest to operate.

Because we buy everything in large lots—leaving nothing for you to get this Jewel Concert Receiver sells at an amazingly low price.

# \$97.50<sup>--and there's nothing</sup> else to buy!

2-tube set assembled complete in cabinet, panel engraved (less tubes, batteries and loud speaker)..... \$27.50

3-tube set assembled complete in cabinet, panel engraved (less tubes, batteries and loud speaker)..... \$34.00

4-tube set assembled complete in cabinet, panel engraved (less tubes, batteries and loud speaker)..... \$38.50

#### The New Roffy Hetro-Trans Sells at \$8.50

Build your own set. Save over \$90 and have your apparatus so simply constructed that it is hard to put it out of order. Get clearer tones more distance—greater volume—better quality and perfect selectivity. Write us today if your dealer cannot supply you.



### Patterson Electric Company, Manufacturers We Sell Direct

239 South Los Angeles Street Telephone 828-139 Los Angeles, California

#### DEVELOPING RADIO FOR FLYING

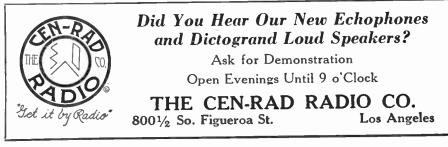
Three different Bureaus of the Government are rushing work to perfect telephone radio sets for transmitting from airplanes in flight. Such transmission is, of course, not new, but efficient sets answering specific requirements are desired by the Army Air Service, the Marine Corps and the Post Office Air Mail Service. The problem cannot be worked out jointly since the specifications are not similar.

Ever since the Armistice, the Army has been trying to develop a combination radio telephone and telegraph set suitable for airplane use, and has just about succeeded. Recent tests with Model Set S. C. R. 134, between an airplane flown back and forth from Bolling Field, Anacostia, D. C., to Quantico, Va., about 45 miles, and the Radio Laboratory of the Signal Corps in Washington, proved the set was practically perfect. Outsiders listening-in on the two-way conversation were deeply interested, following the engineers' conversation carried on over NAA at Arlington, and then picking up Captain Johnson's replies on 400 meters from the plane. The sample transmitter built by the General Electric Co. was found to be satisfactory, the main object being the motor-alternator which furnishes the tone for the interrupted C.W. Transmission, which, it is felt, can be readily corrected and production orders placed. Marine Corps radio and aviation experts recently tested out a new service combination set for use in airplanes, but without very successful results, due chiefly to bad weather conditions requiring low flying. Conversation between officers in the Navy Building, however, and Captain Pierce in a plane over Quantico was carried on, but further tests will be necessary. What the Marine fliers wayt is a short-wave telephone set using around 100 meters, whereas they have been forced to use a transmitting wave of 500, which they claim is too long and productive of harmonics. Navy set 1345 is therefore being modified and improved. Other tests in spotting practice held at Quantico, wherein a plane gave 'phone reports on target practice, proved satisfactory. The operator in the plane was heard as far away as Baltimore by radio fans who were listening in.

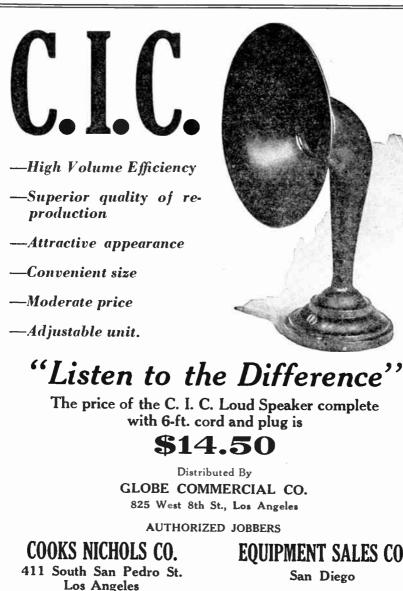
#### POST OFFICE SEEKS ONE-MAN SET

For Air Mail Pilots, who fly alone on their trans-continental trips, the Post Office Department is seeking a "one-man" radio-phone set, which can be operated by the pilot while under way. Radio telegraphy is useless for mail routes in the opinion of Postal authorities, since they haven't room for an operator, and do not require their pilots to learn code. Radio telephony, therefore, carries the whole burden of aiding in aerial flight, getting orders, calling for aid and directions. A special small and compact telephone transmitting set to operate on baout 125 meters is desired. Tests have just been made on a new set developed by the General Electric Co., operating on 180 to 280 meters. Speech is sent out through 5 fifty-watt XL transmitting tubes. The receiver uses seven UV 199 tubes. The operation and adjustment is simple, and the transfer from sending to receiving is made by throwing a switch. After a year's work, a practical standard set has been adopted and an appropription providing for a set for each plane will be sought. The necessity of small space and weight was one of the difficult problems, but it had to be solved in the interest of carrying as much mail as was possible.

Strangely enough, the Navy takes an exactly opposite view on radio airplane communication from the Postal authorities; Naval fliers have practically abandoned the telephone set and use only radio telegraph, all the pilots being skilled in code transmission.



9



WALTER W. BIDDICK, Inc. 1316 South Grand Ave.

Los Angeles 116 E. Fifth St. Santa Ana

## **EQUIPMENT SALES CO.**

San Diego

Dealers MANUAL ARTS RADIO CO.

4154 South Vermont Ave. Los Angeles

# 8-10 A. M. RADIO TIME TABLE

					T	su	N.			мс	DN.		1	UE	:5.	Ī	1	WE	D.		T	'HI	JR.			FF	น.			SA	<b>T</b> .	
STATION	METERS	CITY		CALL	8	8.30- 9.00	00- 8.	30-10.	<b>8</b> -00	38- 9	6 -00	30-10	-00- 8	8-06		2-16	8-00-00	30-8 30-	1 9.00- 9.	8 30-10	8	8	9.00-9.	30-1	00- 8	30- 8.	-00 8	8 30-10	8 00- 8 30	8.30- 9.00	8.00-8.30	_
S. F. Examiner Revnolds Radio Co Winner Radio Star- 7 elegram. News and Journal Palmer School John Wanamaker	360 360 478 478 478 484	Fort Worth Dallas Davenport	K K W W W	UOLZ FEL BAP FAA OCO	, , , ,	X	X X	×	× X X	x x	XXXX X X	X	x x	: x x	XX X X	X	X X	· X X	X X X X	X	x X	· X X	XXXX XXX X	١.	× ×	x	X X X X X		× X	x X X	XXX X X	X - - -

# Radio Standardization Committee Organizing

As an outgrowth of the radio standards conference held in New York last January, the organizing commttee met recently and prepared a proposed list of members representing the various phases of the industry.

Dr. A. N. Goldsmith, Secretary of the Institute of Radio Engineers, has written each proposed member organization asking that a representative be named. The Inter-Departmental Radio Advisory Committee has designated its Secretary, L. E. Whittemore, as its representative on the standards committee. Besides the Inter-Departmental Committee, it is understood that the Government will be represented by radio experts from the Army, Navy and Commerce Departments.

In organizing the committee broad representative lines are being followed, as is prescribed in procedure of the American Engineering Standards Committee. Other representatives will be chosen by the commercial and manufacturing industry, making a total of about 25 to 30 members, including producers, consumers and distributors of radio as well as the general public interests.

#### **Regulations for Radio Antennas**

Some regulations for outdoor antennae will probably be included in the next edition of the National Electrical Safety Code. A sub-committee on this subject held its first meeting at the Bureau of Standards on October 19 under the chairmanship of L. E. Whittemore of the Department of Commerce. Other members of the committee are C. K. Ahearn, Superintendent of Fire Alarm, Waterbury, Conn.; H. J. Burton, Consumers Power Co., Jackson, Mich.; L. W. Chubb, Westinghouse Electric Mfg. Co.; J. A. Cook, New York Edison Co.; W. M. Craft, American T. & T. Co.; J. H. Davis, B. & O. Railroad, and H. C. Wolf, Maryland Public Service Commission. Messrs. Guthrie, Doyle and Tesch of the Radio Corporation of America and Messrs. C. B. Jolliffe and M. G. Lloyd of the Bureau of Standards were also present.

The committee outlined proposals for the regulation of antenna construction which will be reported to the large Sectional Committee carrying out this revision of the Electrical Safety rules according to the procedure of the American Engineering Standards Committee.

9-11 Mountain Time

10-12 Central Time 11- 1 Eastern Time

## THE

# "Sylinders of Sunshine"

will entertain Radioland Tuesday night, Dec. 4, from The Times broadcasting station, Radio K. H. J.

They are being presented by the

## SUBURBAN ESTATES CO.

When THIS company gives a program, Radioland always gets a real treat. Remember the "Unseen Scene?" Jane Novak? Mrs. Grace Senior Brearley, Stewart Wille and Luboviski's Russian Quartet?

#### Visit



at your earliest convenience.

Tune in on K. H. J. Tuesday evening, Dec. 4, and hear our sixth offering to Radioland. If you haven't a receiving set of your own, go to 744 West Seventh Street and hear the "Sylinders of Sunshine" there. We have installed a Federal No. 58 and a loud speaker.

**Office Open Epenings** 

All Day Sunday



# SUBURBAN ESTATES CO.

744 West Seventh Street Los Angeles. Phones 653-25-871-498 Suburban Office, Cor. N. Sherman Way and San Fernando Road to Pacoima Station

### Radio Doings

#### 10-12 A. M. PACIFIC TIME RADIO TIME TABLE 11- 1 Mountain Time 12- 2 Central Time 1- 3 Eastern Time

			Í	SU	N.	ĺ	1	MO	N.	Í	T	UE	<b>S</b> .		W	EC	).	l	TH	IUI	<b>7.</b>		F	RI.			8	AT	•
STATION H	CITY	CALL	10 00-10 30		00-11.	8-13	- 1		1-00	30-12.	0-10	10 30-11 00	10				20-13		6	00-11.	30-12.	ŝ	110 30-11 00	11-11	1 1 30-12 00	1 10 At-11 St	34-11		11.30-12.00
L. A. Union Stik Yds. 360 L. A. Timos		K F C L K H J K F I	X	XX	•	_	X		:		X	:	•		×				K			ľ			-				· · ·
Hate Brothers	San Francisco Oakland Stockten	K P O K L X K L S K J Q	) )		X	×		· ·	•	×	•	.  -		X		•	•		•		,							•	X
Guy Granad.	Santa Barbara Jacoma Seattle Portland	K F H J K F E J K D Z E K T W K F E C	)		×	x	XX ·	X	•		XX	×		•	X	×	•		X	•	•						) (	x • • •	× ×
Palmer School 48 Winner Radio 38	Denver Dallas Davenpart Davenpart Denver 2 Portland	KLZ WFAA WOC KFEL KGW		  			×	X	х Х	XX	X	× ·	X	x	x	X	X	x	×	x	X • •	×	× [	1		2		×	x .  . x

ANOTHER

**EXAMPLE** A and B are amplifying for the set or b, \$80.00. Hore no be the set of the set

Send for Illustrated Folder They Speak for Them-

selves

LITTLE SENIOR \$19.50

J. D. COLFORD & CO.

Phone 823-269

SENIOR

\$25.00

400 San Fernando Bldg., Los Angeles

### 13

### Radio Doings

#### 12-2 P. M. PACIFIC TIME

# RADIO TIME TABLE

1- 3 Mountain Time 2- 4 Central Time 3- 5 Eastern Time

					SL	JN.			M	DN.	•	ŀ	TUE	<b>ES</b> .		W	/E(	).		ΤH	IUF	٩.		FI	RI.			8,4	NT.
NAME OF STATION	CITY	Met.	CALL	12.00-12.30	30- 1	1.00-1.30	30-2.	00-12.	-	1.00-1.30	1.30-2.00	12.00-12.30	12.30-1.00	1.00-1.30	12 00-12 20 1		1 00. 1 20	1 30- 2 00	12 00-12 30	2.30-1.	00- 1	N		12.30-1.00		0.0	00-12		1.00-1.30
L. A. Times L. A. Examiner	Los Angeles	395 469	КН Ј КШН	:		:		•	X	XX		-		XX	- -			K X		X	XX			X	XX			X	XX
Warner Bros	San Francisco	423	K L S K P O	X	X	:			X	ź	x	X	X	x	x	()	 	k X			x	x	x	X	x	ż	X	x	×
Herrold Lab'y Modesto Herald	San Jose Modesto	252	K OW K X D		:	x	x	:		X	X	•		X	×	:					X	X	-		x	x			x
Guy Greason	Pacoma Seattle	455	K F E J K D Z E				•	X	X X	x		X	XX	x				κi :					X	XX	×		X	XX	x
Honolulu Star Bullhtin Honolulu Advertiser Revnolds Radlo Pyles Nichols News and Journai	Honclulu. Honolulu. Denver. Denver	 390	K D Y X K G U K L Z		X	•	•	X · X	x	XX	XX	X · X		x x	×			K K		X	XXX		: : x	x	X X		- - X	X	Y X X
Palmer School Star News	Dailas, Davenport Kansas City Ontroit New York	484 411 580	WFAÄ WOC WDAF WWJ WJZ		X	X		X X	· ·	X	XXXX	X	· · · X	: ; ;;		,			X	X	x	XXX	× •	· · X	X	XXX	X	×	×
Herald.	Calgar .y		C FAC		•	•		Ŷ	Ĥ	Î		Ŷ			]; 				x				x				x		×. 



Ask your Dealer or send for Bulletin 3011-X Give your loud speaker a treat

# Bristol One Stage Power Amplifier NO C BATTERY REQUIRED

A unit that can be used as a third stage without howling. The usual objections against a third stage of audio frequency amplification are entirely eliminated by the use of the new "impact" circuit.

The Bristol One Stage Power Amplifier does not require separate "A" or "B" battery. It uses common tubes such as U. V. 201A, 216A and U. T. 2.

A remarkable achievement—a third stage audio that works RIGHT—install one today and give that distant station a chance to come in like the locals.

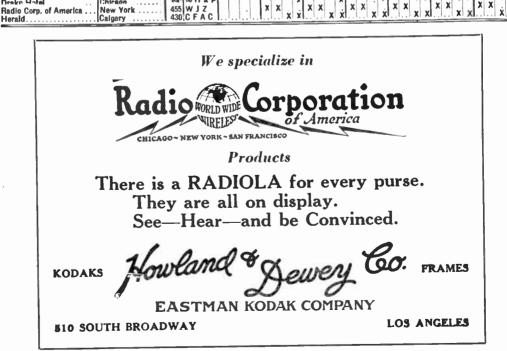
THE BRISTOL COMPANY WATERBURY, CONN.

Pacific Coast Branch Office: 332 Rialto Building, San Francisco, California

Radio Corp. of America

455 W J Z 430 C F A C

2-4 P. M. PACIFIC TIME	RA	D	ΙΟ	•	T	Ί	N	/	F	2	•	T	1	4	E	3	L	E				6	4-	6 (	Cei	ntr ste	al	Ti	ime	Ð	,
					SU	N.			MC	DN.			TU	ES.		,	WE	0.		1	'HI	UR			FR	<b>н</b> .			SA	Т.	_
NAME OF STATION	CITY	Met.		evi .	2 30- 3 00	00-3.	30-4	00- 2	-	-100	30- 4	00+ 2	30- 3	8- 00-3	- <del>-</del> -	00- 20	30- 3	00-3	30-4	00- 2	30- 3	00-3	ৰ i	00- 2	30- 3	승	-7	N I		3 00- 3 30	
L. A. Times Elec. Lighting & Sup. Co.	Los Angeles		ких	-	x	×	-	-		x	X		X	x _			XX	X X	_		X 	<u>×</u>			X X		-	•	X 	X -	
Hale Bros. S. F. Examiner Tribune	San Francisco San Francisco Oakland		К Р О К U О К L Х						X	x	¥		x	x	X		x	×	X		×	x	× ×		x _	x	x	•	× ·	×	x x
Portable Wireless Kimball-Upson Calif Radio Lab'y	Stockton Sacramento Hanford		KWG KFBK KFBD		x					XX	X			x	x			X X	XX	•	-	x	x		_	X X	xx			×	×
First Presby. Church Guy Greason Post-Intelligencer Oregonian	Seattle Tacoma Seattle Portland .		K TW K F E J K F J C K GW			X	×			x	x X X X			x	XXXX			X	XXX.			×	XXX			x _	XXX		•	×	X
Deseret News. Revnolda Radio Winner Radio Honolulu Advertiser	Selt Lake City. Denver Denver Honotulu		K Z N K L Z K F E L K G U						X	X X X				XXX				XXX	×	.x	x	XXX				X X X	x	×	· X	XXX	X X -
Star-Telegram Palmer School Dally News-Fair. Star Free Press. News. Desko Hatel Badis Com of America	Fort Worth Davenport Chicago Kansas City Detroit Chicago Naw York	484 448 411 511 511 511 30	W B A F W O C WM A C W D A F W C X WW J WN A F	,	( X		X	;;		×	x x x	2	x	x	x x x	x x x		×	. XX.	L	x x x	x	х	XXX X	X	X	×××	X	x	X	XXXX



Å.

X

XXXX

x x x x

xx

xx

15

X X X X X X X X X

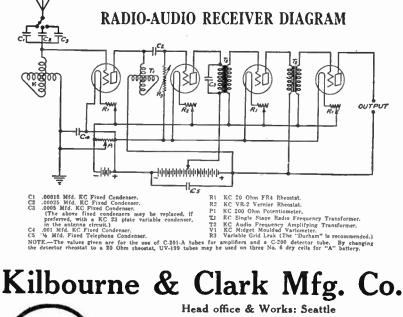
Radio Doings

# **Efficiency Counts!** TUNED RADIO FREQUENCY WITH KC PARTS ANNIHILATES DISTANCE

A set properly operated and constructed to the specifications below will regularly pick up broadcast to a distance of 1000 miles without any ground and with just a small loop or a piece of wire 15 to 20 feet long in the room. Engraved bakelite panel ready for mounting parts as below..Each \$ 8.25 Accessories, including tubes, batteries, phones and antenna material. 47.85 TOTAL COST OF MATERIAL..... 

Send 25c to our nearest Factory Branch for Blueprint and Diagram Giving Details of all Material.

> ASK YOUR RADIO STORE ABOUT IT THEN! BUILD ONE!



**BRANCH OFFICES:** 

K. C. Your

Guarantee

Portland, 305 Larrabee St. Phone East 6156. San Francisco, 591 Mission St. Phone Sutter 40. Los Angeles, 1103 W. 10th St. Phone 581-002. New York City, 80 Washington St.

For 10 years we have built radio apparatus for ships, shore stations, U. S. Navy, amateur and experimental use.

#### 4-6 P. M. PACIFIC TIME R.

# RADIO TIME TABLE

#### 5- 7 Mountain Time 6- 8 Central Time 7- 9 Eastern Time

*					SU	N.			MO	N.		τu	ES.			WE	D.		т	нι	JR.			FR	۱.		8	BAT	•
NAME OF STATION	CITY	Met.		8		-2 00-	30- 8	00-4	4 30- 5 00	38	8	30- 5	9 - 90	80- 80	8-9	30- 2	9 00-00	-	9		in la	ŝ	₹	90-00 00-00	s  s		e je		n a
E. C. Anthony L. A. Heralo L. A. Examiner	Los Angeles	469	K F I Herald Examiner	1	X	:			•	;			x	x		•	x	X	-		X	x		X	x	x			×
Oaktand Tribune S. F. Examiner	San Francisco Oakland San Francisco . Berkeley		K P O K L X K U O K R E					<b>X</b>	X 	X X J	,		X	x	<b>x</b>	<b>X</b>		x	x	× • •	X	x	×		X X	x	X	X	x x
Gould	Stockton	268	KWG KJQ KFAW					<b>X</b>	X	x	<   '	x x	x	x	X	X X	x  	x	<b>x</b>	X	x	x	X	X X	×	x	X	X X	x :
Nielson Radio Co	Phoenix	238	KFBC						-	X	ĸ						X	X			. _				<u>x</u> .	×	· _		. .
Post-Intelligencer Rhodes Co. First Presby. Church. Northwest Radia. Muliane Elec. Guy Greason Guy Greason Meier & Frank Heilork & Watson Pyle & Nichols.	Seattle	283 252 360	KFJC KDZE KTW KJR KGB KFEJ KFEC KGG KDZQ		· · · ·	X	x	X	· · X X	x		C .    	X	· X X X	X	X X		X X X	X	x x	X	X X	X  X		X X X X	X X X	X	×	×
Star-Telegram News and Journal. Southern Egr. Exp. Paimer School Daily News-Fair. Free Press. News. Star Tribune Drake Hotel Crnaley wifg Co. Radio Corp. of America. John Wanamaker	For Worth Dalias, Sau Antonio Davenport Chicago Detroft Kansas City Great Falle Chicago Cincinnat New York Philadelphia	476 484 438 517 580 415 390 309 455	W B A P W F A A W O A I W O C W M A Q W C X W W J W D A F K D Y S W D A F K D Y S W D X W D A W J Z W O O			X		x : : : : :	X X	X	x x		XXXXX	x x x	X • •	x	XXXX	X X X X X X X X	1	X X X X X X X	XX XX XXXX	X X X X XXXX	X X X	x x	· · · XX · X · X · XX	XXXXXXX	X	X X X	X X X X X X X



# Danes Listen In On U. S. Broadcasters

Enthusiastic radio amateurs in Denmark are always endeavoring to catch broadcasting from the United States, even though his country lies in a somewhat more unfavorable position to receive American radio messages than other European countries, Consul-General Letcher reports from Copenhagen.

Now that it has become dark during the American sending hours, however, conditions for picking up American stations are much better during the light summer evenings. Some of the Danish radio amateurs have lately made it a practice to "listen in" for Americans at about 3 or 4 o'clock in the morning. Recently several of these amateurs reported "getting" different broadcasting stations in the United States. One station mentioned particularly was "Schenectady" with the call signal W G Y. Orchestra music, soloists and speeches were plainly heard.

Interest in radio continues to increase in Denmark, the General says, and it is estimated that there are now approximately 10,000 radio amateurs in the country.

> Keep Up to Date! Subscribe to Radio Doings \$2.00 a Year



6-8 P. M. PACIFIC TIME

# RADIO TIME TABLE

7- 9 Mountain Tim 8-10 Central Time 9-11 Eastern Time

					SU	N.		I	мо	N		1	UE	ES.		1	WE	D.		١	[HI	UR.			FR	1.		1	<b>5A</b> 1	<b>r</b> .
NAME OF STATION	CITY	MøL.	CALL	8	ģ	8	8-8		10- 7	~	30- 4	+	311- 7	2 -00- 2		<u>ب</u>	- 98	00- 2	30 8 6	ع	6 30- 7 00	~	30- 8	6 00- 6 30	30- 2	ś	ی ج	90-90		7 00- 7 30
Bible Institute L. A. Times E. C. Anthony	Los Angeles	360 395 469	K J S KH J K F I	×	X	x			- xx -	×××	_	-	××	XXX		_	X X	XX		_	XX	X X			XX	XXX			XX	X X
8, F. Examiner Maxwell Electric Tribune Western Radio	San Francisco Berkeley Oakland Oakland	360 509	KRE	•	•	•	•	X	X	X	_	x	X	x		х	х	х		×	×	x		x	X	X		X	X	x
Fallon & Co	Sacramento Modeeto Hanford Santa Barbara Santa Ana San Diego	283 360 268 242 244 278	K X D K F B D K F H J K F A W K F F A K D P T	x	×	· X · · X	X	x	XXXXX	x x	×	X X X	X X X	x		x	X X X	x x	× · · ·	x x x	***	X X X		x	x x	х́ х х	· · · · · · · · · · · · · · · · · · ·	X X X	X X X X ·	•
Smith-Hughes Co McArthur Bres Univ. of Ariz	Phoenix		K D YW K F A D K F D H		×			X	×	x		×	x	x	X	×	x	x		x	x	x	×	X	x	х		X	X	x
Love Elect. Ce Mullens Elect. Co Northwest Radio Service. Excelsior Motor Cycle First Presby, Church State Coll. of Wash	Tacoma Seattle <sup>44</sup> Pullman	252 283 280 330	K J R K H Q K TW		•		X		X	х	xx x	X	х	X	X X X	Х	х	× × × ×	×××				XX	X  -	х	X	X X X	х	X	x
Oregonian. Hallock & Watson Meler & Frank Apple City Radio Club Adier's Music Store. Bolse High School Bunkerhill & Sullivan Co.	Portland Hood River Saker, Ore Boise, Ida Wallace, Ida	360 360 270	KGG KFEC KQP KFD/		X	X	X		X	x x	X X X X			- - - X	XXX X		X		x x x		•		XXXXXX		· · · · · · ·	х х.	x x x			X X X
Telegram Deseret News Reynold's Radio Western Radio Pyle & Nichols Sparks High School	Denver.		K Z N K L Z			x x x			X X	x x		X	x	x x	x x ··	X · · ·	X X	x	x	X .	X	1 X			X X ···	X X X	ż	<b>X</b>	X	X
Star-Telegram News and Journal Paimer School Daily News-Fair Post Dispatch Westinghouse Sweeney School Star Tribuns. Drake Hotel Crarley Mrg. Co. Albertan Pub. Co. Detroit Free Press.	Dallas Davenport. Chicago St. Louis Chicago Kanass City Great Falls Chicago Cincinati Calqary, Can. Datroit	476 484 448 546 448 411 411 390 309 410	W F A A W O C K SD K YW W H B W D A I W D A I W D A I W C H B W G X			×	X		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	x x x	x x x	XXXX	XXXXX	x Ŧ	X X X	X X X X X X X	X X X X X	X X X X X X	2						*****	х , , , , ,	x	XXXX	** ***	2
Radio Corp. of America John Wanamaker El Bren Tono El Universal	New York Philadelnhia Mexico City	458 509	W J Z W O O C Y B	2		X		X		X X		XXX	X	X	ĥ	2					()	( ) ( ) ( )	¢			( X	X	X	X	11

The numeral next to name of station indicates the wave length. Where no number appears, the wave leng is 360. The letter indicates that the station is on the air.

MURDOCK "SOLID" NO. 56 HEAD PHONES Best at Any Price

has

the

Set

# PEERLESS INTERNATIONAL

Has bridged the Continent San Francisco with Montreal, Canada, and Also New York City

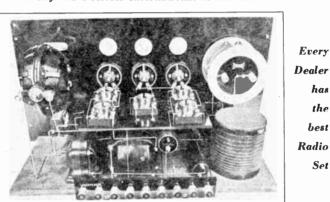
The "Peerless International" is essential in remote places for clear, loud and distant reception.

The "Peerless International" Radio Frequency Receiver consists of two stages of Tuned Frequency Amplification, one Detector and two stages of Audio Frequency am-plification (five Tubes)—combined in one beautiful cabinet of solid mahogany.

We Say the Peerless International Is the Best



Child



Price complete, installed, \$275

Make us prove by demonstration that our set is the best.

A Few of Our Satisfied Peerless International Owners Senator lames D. Phelan. W. R. Chamberlain, President W. R. Chamberlain Steamship Co. Milton H. S. Berg, President General Cigar Co.

John B. Blair, President J. J. Moore & Co., steamship owners. W. F. Burrell, President Hooper Lumber Co.

P. E. Bowles, President American National Bank, San Francisco.

Theodore Breslauer, Attorney, San Francisco.

R. K. Ham, Retired Woolen Manufacturer. Charles Dumphy, Mexican Mine Owner.

EXCLUSIVE DISTRIBUTORS for SOUTHERN CALIFORNIA

"Dealers and Salesmen Wanted"

"Quality"



"Service"

1030 So. Figueroa St., Los Angeles

Phone 820-253

8-10 P. M. PACIFIC TIME

# RADIO TIME TABLE

#### 9-11 Mountain Time 10-12 Central Time 11- 1 Eastern Time

					su	N.			M	DN.			rui	ES.			WE	.D.		1	гн	UR			FI	RI.			8/	<b>.</b> Τ.	-
NAME OF STATION	CITY	Met.	CALL	B. N. IN	*		0	00	8 30- 9 00	00-9	30-10	00	ģ	æ 60	Ξ	NO. 8 30	1 H H H H	4 10 A 41	91 01 01 06 6 1	1 H 190- 8 30	1 E 40- 9 110	4 00- 4 30	0011-00 6	H 00 H 30	NO 6 -18 ×		4 91-10 (N)	A 06-8 30	R 30-9 16	8 00- 9 30	9.30-10.00
L. A. Heraid Bible Institute L. A. Times L. A. Examiner	San Francisco	350 395 469 469 422	Herald KJS KHJ Examiner KFI KPO KUO KLS	x x x	× × ×	x x x - x	XXX	-	x	-	-	x x x	x x x	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	x x x x x	Y X X X X	x x x x x x x	X X X - 3'	X X X X	xx	_	x x x x	xxxx	х х х х х	X X X X X X	x x x x x	× × × × ×	X X X	x x x x	X X X X	· · X X X X · ·
Oakland Tribune Maxwell Electric Cal. Radio Lab'y Mode-to Herald	Dakland Dakland Hanford Modesto	509 278 252	K L X K R E K F B D K X D	-	-	-	-	X X X X X X	_ _	× .	х _	х —	х —		×	× - ×	-	х -	x _	×	× _	х -	× 	-		×	×	-	-	-	
Portable Wireless San Joaquin L. & P Herruld Lab'y. Kimbali-Unson Abbutt-Kinney Ca Gould Failon & Co. Dr. W K Azbill. Savoy Theatre Southern Elect Co	Storkton Freeno San Jose Sacramento Venice Stockton Santa Barbara San Diego	273 283 258 366 278 252 244	KAW KFBK KFAV KJQ KFHJ KFBC KDYM	x	x	x	×		X··XX	X		× • • •	X		•	x x	***	x x x	x x	x x		X	x	x	x	x x	X X	х х	x	x	· · · · · · · · · · · · · · · · · · ·
Univ of Ariz Nielson Radio Sup Co	fucson Phoenix	238	K F D H K F B C		-	-		- -				x					-	-		x	-	_	-		x	x	x	-			
Post-Intelligencer Northwest Radio Service Excelsion Motor Co Anodes Co First Pre-by Church. Oregonian Hallock & Watson. Stubbs Elect Meler & Frank Apple City Radio Club. Pauthc Radio Co- Boixe High School Virgin Radio Servica Bunkerhill & Suffivan Co.	Portland Hood River Eugene. Ore Rolse. Ida Wetford, Ore. Wetface, Ida	270 283 280 455 492 360 360 275 270 283	K JR K HQ K DZ E K G W K G M K G M K F E C K F E C K F A U	X	- x	x	-	x x x x x	X X	×	X		X		•	x	<u>.</u>		x x x x	x x · · · · x	× · · · · · · · · · · · · · · · · · · ·	x x . x .	x x	· X X	x x x	x	X X X X	xx	×× ××	X	X
Deserel News Revente Perilo Co Pyle & Nichris. Winner Radio Star Telegram.	Salt Lake City . Tenver, Derver, Denver, Fort Worth.	360 476		-	-			X	x'x	-		X X X	x - x	<u></u>	-	x   x				x  X	x 			X	-			x  x			
D Has Now Palmer School	Darlans, Fex, Davenport	475 484 546 411 526 345 361 700 455 430	K SD WDAF WOAW K YW K F E L W I W		I	x		X X	:	X	X	· · · X X X X X X X	. X	XX	x	x x 		X	X X X	x x x x	,		x	, Y		x	X	y X			1

#### MURDOCK "SOLID" NO. 56 HEAD PHONES Best at Any Price

Radio Doings

# RADIO SUPPLIES Most Complete Line on the Coast

#### Monodyne Tube Set, complete.....\$27.50 Sterling Voltmeter.... 2.75 Filko-stat ......\$ 2.00 Workrite Variometer and Varicoupler, each..... 3.50 Erla Reflex Transformers..... 5.00 WD-11, WD-12 Tubes, large stock..... 6.50 UV-199 and C-299, 201-A, 301-A Tubes..... 6.50 Diodide Detector Tube with Socket..... 2.50 All American Transformers..... 4.25 Atlas Loud Speaker . . . .

#### 

No. 05 regerar fransformer					
No. UV 1716 Transformer					
Parts for Fada 5-tube Set		 	 	 	65.60
Sleeper Variometer and Varicouple	, each.	 	 	 • • •	6.00

SPECIAL SALE OF RADIO BOOKS Reg.	Sale
Wireless Telegraphy, by Bucher\$2.25	\$1.15
Experimenters' Manual, by Bucher	1.15
Wireless Stations, by Edelman	1.50
Sleepers-Radio Hook-Ups	.50
Radio Phone Receiving	1.00
Radio Instruments and Measurements	1.00
Radio for Everybody 1.50	.90

#### We have for Immediate Delivery Erla Parts, Fada No. 160 Receiver, \$120.00; Neutrodyne Parts Radiola II, Radiola IV, Radiola Grands Gilfillan, Sleeper and Remler Parts Acme Transformers Bradleystad and Bradley Leak, \$1.85

Full line Transmitting Parts Citizens Call Books, 50c Cabinets, built to order, \$3.50 up

Full line Hazelhurst Condensers Roffy Transformers, \$8.50

# MOTOR CAR SUPPLY CO.

Open Evenings Till 9 P. M. Telephone 826-063 920 South Broadway Los Angeles, California

OUR NEW AND COMPLETE PRICE LIST

# 10-12 P. M.<br/>PACIFIC TIMERADIO TIME TABLE

#### 11-1 Mountain Time 12-2 Central Time 1-3 Eastern Time

				SU	N.	Ī	N	101	I.		TU	ES,		۱	NE	D.		т	нι	JR,			FF	RI.			SA	т.	
STATION LU EL W	CITY	CALL	10.00-10.30	30-11.	11.00-11.30	11 30-12 00	10.00-10.30	11 00-11 30	11 30-12 00	00-10	10 30-11.00	00-11	<u>3</u> -12	10.00-10 30		1-90	11 30-12 00	01-00	11-00-01	11.00-11.30	30-12	00-10	Ę	Ę	111 30-12 00	10 00-10 30	110 30-11 00	1 11 00-11 30	111.30-12.00
Post-Intelligencer270 Earle C. Anthony 469	Seattle.	KFI	X	X	-	-	x	x .		X X	X X	X	X		X X		X X	X X	X X	Х	х	X X X	X X X	XXXX	XXXX	X X X	X X X	X X X	X X X
W. W. Grant 440	Portland Calgary	K G N K G W C F C N	:	•	•					X	X			XX	X X X	ż	x	x	X		•	X	X	X X	Ŷ	X X	X		
*Hale Bros	Calgary	K P O C F A C K D Z Q	x	· X	•	-	X	X	•	X	• •	×	•	•	•	•	-	X	Ŷ			•	•	•	-	•	•	:	:

\*Note-Hale Bros., San Francisco, KPO, on Monday, Tuesday, Wednesday broadcast to 1 a.m.

# SUNDAY- 8:00 to 9:00 p. m. LYMAN'S ORCHESTRA.

SUNDAY-- 8:00 to 9:00 p. m. LYMAN'S ORCHESTRA. Broadcast by Remote Control Over KF1 LOS ANGELES, CALIFORNIA MONDAY-- 10:00 to 11:00 p. m. LYMAN'S ORCHESTRA. TUESDAY-- 8:00 to 9:00 p. m. LYMAN'S ORCHESTRA. WEDNESDAY-- 11:00 to 12:00. LYMAN'S ORCHESTRA. THURSDAY-- 8:00 to 9:00 p. m. ROSENFELD'S ORCHESTRA. SATURDAY-- 11:00 to 12:00 p. m. ROSENFELD'S ORCHESTRA.

### STOP AND READ THIS

If you're a keen radio fan, you want Long Distance GET LONG DISTANCE WITH A COAST COUPLER

The whole trouble with radio set owners is, they cannot tune in distant stations. Of course they can't. They don't own a Coast Coupler. A C o a st Coupler is cheap and gives you the thrill of hearing distant stations.



You've got to have a Coast Coupler to get long distance. With one tube and this Coupler you can hear Detroit, Chicago, Calgary, Canada, most any station you want. Isn't that satisfactory?

Special hook-up given free with each Coast Coupler Don't be foolish and spend your money recklessly. Buy our Coast Coupler and hear distant programs on your set.

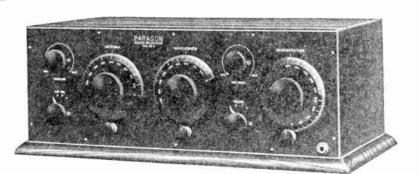
Don't Delay-Small Stock Left-Mail \$5.00 with This Coupon

## COAST COUPLER COMPANY

Manufacturers and Dealers 245 EAST SEVENTH ST.

LONG BEACH, CALIF.

COAST COUPLER CO., 245 East Seventh St., Long Beach, Calif. Enclosed find five dollars, for which send me one Coast Cou	ıpler.
Name	



# A New Paragon Receiver

The new PARAGON is the last word in sensitivity and selectivity. The superiority of this type over all other classes of receiving equipment has been thoroughly proved by the long list of distance records which it holds. Included in these records are the reception of the first transcontinental amateur message, the reception of the first trans-Atlantic message, and the unbroken communication which it has maintained with the McMillan Expedition frozen in above the Arctic Circle. (See December Radio News, page 707.)

All cabinet work is of mahogany with a brown mahogany finish. All metal parts showing, inside as well as outside of the cabinet, are nickel-plated. 98% of the wiring is invisible. Compartment for dry cells. Yes, use any tubes. The whole outfit is compact, neat and solidly built.

#### Demonstrated and sold by

Dealers, get our Exclusive Proposition

Exclusive wholesale distributors for Southern California

### WALTER W. BIDDICK, Inc.

1316 So. Grand Ave. Los Angeles 116 E. Fifth St. Santa Ana





400 San Fernando Bldg. Los Angeles

## Of Course You Are Interested

IN

# **REFLEX CIRCUITS**

REFLEX is our specialty — have you tried the new

# HARKNESS

Single Tube REFLEX?

It embodies turned radio frequency—can be built for less than any other set that will operate a loud speaker—is extremely selective and employs only two controls—one tube does the work, therefore dry cells can be used.

Complete parts for the HARKNESS single tube reflex (less tube, batteries and cabinet), \$17.00.

COILS T-1 and T-2, wound with silk wire according to HARKNESS specifications......\$2.50 per set

#### "PEARLCO" REFLEX RECEIVER

The Best Two Tube Reflex Complete parts (less tubes, batteries and cabinet),\$36.50

ERLA REFLEX. . We stock the genuine parts for the one tube or three tube circuit.

### "Make This a Radio Christmas"

MAIL ORDER SERVICE ANYWHERE

# Yale Radio Electric Company

"PEARLCO" Distributors for California" Phone Vermont 8973

4816-48-18 So. Vermont Ave.

Los Angeles, Calif.

Satisfactory Discounts to Dealers

÷

# K H J-Los Angeles Times-395 Meters

Times Building, First and Broadway, Los Angeles. Owned and Operated by Los Angeles Times. Phone Metropolitan 0700

WEEK COMMENCING DECEMBER 2ND (Subject to Change)

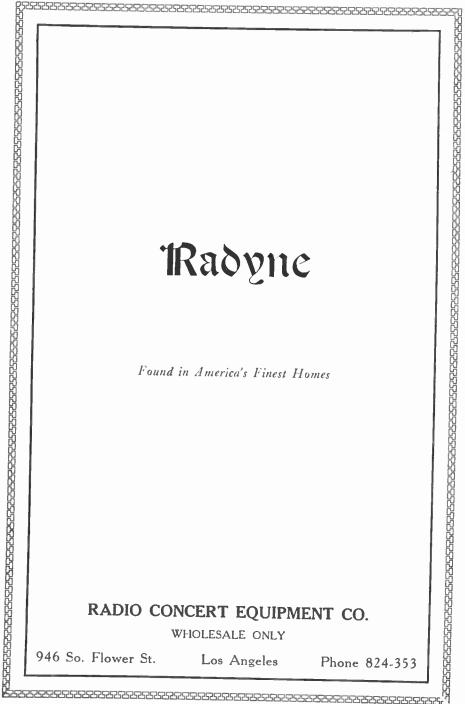
SUNDAY—	
50112711	Week Commencing December 2nd, 1923
10:00 a.m.	Sermon by Dr. H. C. Culbertson, pastor of the Plymouth Congre- gational Church.
10:30 to 12:30 p.m.	Organ recital and entire religious service from First Methodist Episcopal Church. Rev. Elmer E. Helms, pastor. Arthur Blakeley, Organist.
7:30 to 7:30 p.m.	Organ recital from First Methodist Episcopal Church; Arthur Blake- lev, organist.
8:00 to 10:30 p.m.	Grace Senior Brearley, pianist; Caryl Marshall, soprano; Dr. J. W. Wallace, tenor; Frederick McMurray, viola. Lecture, "Seeing Amer- ica," by Dr. C. Stuart Hutchinson.
MONDAY	
12:30 to 1:15 p.m.	News Items. Music.
2:30 to 3:30 p.m.	Silent.
6:45 to 7:30 p.m.	Silent. Silent.
8:00 to 10:00 p.m.	Stient.
TUESDAY-	
12:30 to 1:15 p.m.	News Items. Music. Matinee musicale presenting Mrs. Ray Fisher, contralto.
2:30 to 3:30 p.m. 6:45 to 7:30 p.m.	The weekly vist of the "Sandman."
8:00 to 10:00 p.m.	The weekly visit of the "Sandman." Program presented by "Sylinders of Sunshine," the Three Selbys,
	through the courtesy of G. Allison Phelps, of the Suburban Estates
10.00 10.00	Company. Rev. Thomas Lutman lecture, "Are Thoughts Things?" Broadcasting Art H ckman's Orchestra, by line telephony from the
10:00 to 12:00 p.m.	Los Angeles Biltmore Hotel.
WEDNESDAY-	Not rengelee wethere in the
12:30 to 1:15 p.m.	News liems. Music.
2:30 to 3:30 p.m.	Matinee musical presenting Cecilian Trio.
6:45 to 7:30 p.m.	Children's program presented by Vera Leavitt Owens, soprano. Priscilla Moran, screen juvenile. Mrs. Rufus Wagner will tell Bed- time Story.
8:00 to 10:00 p.m.	Program presented through the courtesy of Victor Schertzinger, mo- tion nicture director, and composer of "Marcheta."
10:00 to 12:00 p.m.	Broadcasting Art Hickman's Orchestra, by line telephony from the Los Angeles Biltmore Hotel.
THURSDAY-	
12:30 to 1:15 p.m.	News Items. Music.
2:30 to 3:30 p.m.	Matinee musicale.
6:45 to 7:30 p.m.	Children's program presenting John T. Brown, harmonica, and Dickie Brandon, 4 years of age.
8:00 to 10:00 p.m.	Program featuring Ada Androva, dramatic soprano.
10:00 to 12:00 p.m.	Broadcasting Art H'ckman's Orchestra, by line telephony from the Los Angeles Biltmore Hotel.
COLD AV	Los Angeles Ditmore notei.
FRIDAY 12:30 to 1:15 p.m.	News Items. Music.
2:30 to 3:30 p.m.	Matinga musicale
6:45 to 7:00 p.m.	Children's program presenting Richard Headrick, screen juvenile.
7:00 to 7:30 p.m.	Organ recital from First Methodist Church.
8:00 to 10:00 p.m.	Program presented by Polytechnic High Girls' Glee Club. Broadcasting Art H ckman's Orchestra, by line telephony from the
10:00 to 12:00 p.n.	Los Angeles Biltmore Hotel.
SATURDAY-	
12:30 to 1:15 p.m.	
6:45 to 7:30 p.m.	
8:00 to 10:00 p.m. 10:00 to 12:00 p.m.	
10:00 to 12:00 p.m.	Los Angeles Biltmore Hotel.

#### "THE RADIO SEASON"

If there be such a thing, is surely at hand now. With snappy evenings and wonderful programs in the air, do not delay installing a modern Radio Corporation set. Possibly we can use your old set and give you a mighty fair exchange. Come in and see us.

COAST RADIO CO., INC.

Phone El Monte 110



## K F I, Radio Central Station of Earle C. Anthony, Inc.

Packard Building, 1000 South Hope St., Los Angeles, California. Class "A" 500 Watt Western Electric Station, Operating on 469 Meters.

<b>Remote Control Stations:</b>			
Los Angeles Evening He	8:00 to 9:00 Monday, Wednesday, Friday.		
Los Angeles Examiner	5:30 to 6:00 p.m. daily except Sunday. 9:00 to 10:00 p.m. daily.		
Hotel Ambassador	8:00 to 9.00 p.m. Sunday, Tuesday, Thursday. 10:00 to 11:00 p.m. Monday. 11:00 to 12:00 p.m. Wednesday, Friday, Saturday.		
Program Detail Anthony Studio (Pacific Time, Dec. 9th to 15th) (Does not include detail of remote control stations)			
SUNDAY-	(Subject to change)		
10:00 to 10:45 a.m. 4:00 to 5:00 p.m. 6:45 to 7:30 p.m. 10:00 to 11:00 p.m.	Service by L. A. Church Federation. Service by Federated Church Musicians. Instrumental program. Theron Bennett's Orchestra.		
MONDAY-			
6:45 to 7:30 p.m.	Coral Atkins.		
TUESDAY			
6:45 to 7:30 p.m.	Mrs. Emma M. Bartlett, chairman Public School Music, State Fed- eration, will furnish nusical program.		
10:00 to 11:00 p.m.	Meany & Nehls instrumental and vocal concert.		
WEDNESDAY			
6:45 to 7:30 p.m. 10:00 to 11:00 p.m.	Nick Harris Detective Stories. Instrumental Music.		
THURSDAY—			
6:45 to 7:30 p.m. 10:00 to 11:00 p.m.	Courtesy of Y. M. C. A. Vocal and instrumental concert.		
FRIDAY—			
6:45 to 7:30 p.m.	Wa-Wan Juniors.		
10:00 to 11:00 p.m.	Madelyn Hardy.		
SATURDAY			
6:45 to 7:30 p.m. 8:00 to 9:00 p.m. 10:00 to 11:00 p.m. William K. Gibbs, pro	Dance music.		



## **Examiner** Radio Studio

Phone Metropolitan 4000

These programs are rendered in the Examiner Studio and broadcasted by remote control over the leased wire of the Southern California Telephone Company from Radio Central Station KFI.

SUNDAY, DECEMBER 2-		
9:00 to 10:00 p.m.	Vincent Rose and Jackie Taylor's famous orchestra, featuring Vin- cent Rose song hits.	
MONDAY		
5:30 to 6:00 p.m. 9:00 to 10:00 p.m.	Dr. Ralph L. Power, lecture on Education. The Peach Edition Club, featuring: Harry McCoy, famous motion picture comedian; Frank Braidwod, the cowboy baritone; Charlie Melson, of Irving Berlin, Inc.; Harry Coe, of Leo Feist; Madelyn Hardy, the "Radio Girl," and the Hollywood Californians, from Hol- lywood.	
TUESDAY-		
9:00 to 10:00 p.m.	Program through the courtesy of Sid Grauman, of the Grauman. Theaters.	
WEDNESDAY-		
•	The Examiner Radio Club, popular numbers.	
THURSDAY-		
9:00 to 10:00 p.m.	Pallma and his Band Supreme from Tally's Broadway Theater. Pro- gram through the courtesy of Lester's Radio Shoppe.	
FRIDAY	Brenn unterBurne terrete and terreter and the	
9:00 to 10:00 p.m.	Bohemian Nite. Program presented by Finn Haakon Frolic, the noted sculptor.	
SATURDAY—		
9:00 to 10:00 p.m.	Palos Verdes Concert under the direction of Jean De Chauvenet.	
SUNDAY 9:00 to 10:00 p.m.	SPECIAL CONCERT.	

#### MURDOCK "SOLID" NO. 56 HEAD PHONES Best at Any Price

RADIO		
SATURDAY SPECIALS		
\$40.00       Loud Speakers, just like West. Electric.       \$24.75         \$15.00       Loud Speakers.       6.50         \$ 5.00       45-volt B. Bat.       3.50         \$ 6.50       3-volt Tubes.       4.00         \$10.00       French 4000       Ohm Phones.       4.00         \$12.00       Nickle Double Horns.       5.00		
FOR XMAS \$135.00 Armstrong Reg. 3-Tube Set\$75.00 \$100.00 2-tube, complete with horn		
500-mile Crystal Set, complete		
Terms. Open Evenings and Sunday, 9 to 12. Terms		
140 South Spring St. LESTER RADIO SHOP Metro. Los Angeles Metro.		

### **Evening Herald Radiophone**

Owned and Operated by the Evening Herald Broadcast by Remote Control from Radio Central Station KFI Telephone Metropolitan 5100 5:00 to 5:30 p. m. Evening Herald News Bulletin covering the World's News Events up to 5:00 p. m. Closing market quotations by leased wire. MONDAY, DECEMBER 3-8:00 to 9:00 p.m. Cook's Dance Orchestra; Mary Nichols Burch, Winifred Mansfield, singers. WEDNESDAY, DECEMBER 5-8:00 to 9:00 p.m. Concert under direction of Caroline Weeks-Helms of Barker School of Music. FRIDAY, DECEMBER 7-8:00 to 9:00 p.m. Barker's Metropolitan Orchestra. Dot Street, vocalist.

### "Half the head phones in use are Murdock"

# KNX—The Electric Lighting Supply Co. 360 Meters

CALIFORNIA THEATRE RADIOPHONE

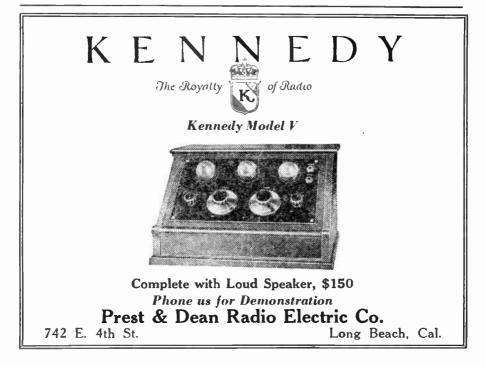
Owned and operated by Electric Lighting Supply Co., 216 W. Third St., Los Angeles, California MONDAY-

3:30 p.m. California Theatre Orchestra, Carli D. Elinor, Director.

WEDNESDAY-

3:30 p.m. California Theatre Orchestra, Carli D. Elinor, Director. FRIDAY--

3:30 p.m. California Theatre Orchestra, Carli D. Elinor, Director.



### K J S-Bible Institute Radiophone-360 Meters

Owned and Operated by Bible Institute of Los Angeles, Inc. M. E. Carrier, Manager Radio Department Telephone Metropolitan 6701

SUNDAY, DECEMBER 2-11:30 a.m.

Dr. R. A. Torrey, sermon. The Harmony Quartet. Mr. C. M. Brooks, baritone, Gospel solo. 6:00 to 6:45 p.m.

10 to 6:45 p.m. Rev. Wm. H. Pike, Scripture and Sermon. Miss Paulene Plum-mer, organist. Mr. John Wiens, baritone. 10 p.m. Dr. R. A. Torrey, sermon. Mrs. IrvinS. Fallis, soprano. The 8:00 p.m. Harmony Quartet.

TUESDAY, DECEMBER 8:00 to 9:00 p.m. Organ recital. Mr. L. E. Woody, tenor.

THURSDAY, DEC. 6-Organ recital by Mr. Otto T. Hirschler, assisted by Mrs. Irene 8:00 to 9:00 p.m. Gay, soprano.

### KFAE—State College of Washington—330 Meters

(State College of Washington, Pullman, Wash. Miss Alice L. Webb, News Editor.) MONDAY, DECEMBER 3, 7:30-8:30-

Storing Your Car for Winter, by Harry Nash, Engineering Department. Musical Numbers.

Pruning in Cold Weather, by F. L. Overley, Horticultural Department.

Chemistry Talk. Baritone Solos by Paul Christen, Butte, Mont. New Helps in Education, by Dr. C. W. Stone, Education Department. Siamese Twins in Agriculture, by B. A. Slocum, Bee Specialist.

WEDNESDAY, DECEMBER 5, 7:30-8:30-

How to Choose a Vocation, by Dr. D. W. Hamilton, Education Department. Curing and Smoking the Winter Supply of Ham and Bacon, by R. T. Smith, Animal Husbandry Department.

Musical Numbers.

The Christmas Dinner, by Miss Mary Sutherland, Nutrition Specialist. Music by the Conner Stringed Trio; Misses Catherine and Claribel Conner of Spokane on Viola and Cello, and Miss Ruth Coates, Spokane, Violin.

FRIDAY, DECEMBER 7, 7:30-8:30-

Educational Talk on Soils. Talk on the New Books, Miss Alice L. Webb, Editor General Publications. Musical Numbers.

Farm Prices, by R. N. Miller, Farm Management Demonstrator.

### RADIO SPECIALISTS

736 South Olive Street, Los Angeles, California Phone 826-823 We Build, Repair Neutrodyne, Hetrodyne, Reflex, Regenerative and **Crystal Sets** ASK YOUR DEALER OR JOBBER ABOUT US



THESDAY

### K P O-Hale Bros. Radiophone-423 Meters

San Francisco, California—Class "B" Station E. C. MORRISON, Director of the Station ADA MORGAN O'BRIEN, Program Manager

Daily, except Saturday and Sunday, 1 to 2 and 4:30 to 5:30 p.m., Fairmont Hotel. Saturday, 1 to 2 p.m., Fairmont; 3:30 to 5:30 p.m., Palace Hotel, Tea Dansants. Sunday church services by Church Federation of San Francisco, 11 a.m. to noon.

#### **EVENING PROGRAMS**

SUNDAY-8:30 to 10:00 p. m. Rudy Seiger's Fairmont Hotel Concert Orchestra.
MONDAY-8:00 to 10:00 p. m. Studio Program.
11 p. m. to 1 a. m. Palace Hotel Dance.
Organ between 9 and 10 p. m.
TUESDAY-8:00 to 10:00 p. m. Studio Program.
11 p. m. to 1 a. m. Palace Hotel Dance.
WEDNESDAY-8 p. m. to 1. a. m. Max Bradfield's Palace Hotel Dance Orchestra.
THURSDAY-8:00 to 9:00 p. m. Studio Program. Pipe Organ Recital.
9:00 to 11:00 p. m. Palace Hotel Dance.
SATURDAY-8:00 p. m. to midnight. Special Request Program. Art Weidner's Fairmont Hotel Dance Orchestra.

### KLX—Oakland Tribune Radiophone—509 Meters

Oakland, California-Class B-500 Watts 7:00 to 7:30 p. m. Daily. Except Sunday

IUESDAI-	
8:00 to 10:00 p.m.	Studio Program.
WEDNESDAY	
8:00 to 8:30 p.m	Program by University of California.
THURSDAY	
8:00 to 10:00 p.m.	Program by University of California.
FRIDAY	
8:00 to 10:00 p.m.	Studio Program.

"Half the head phones in use are Murdock"

# **SLEEPER MONOTROL**

A Grimes Inverse Duplex Set List Price \$115.00

## COOK-NICHOLS CO.

411 So. San Pedro St. Los Angeles, Calif.

WHOLESALE ONLY

PHONE 871-350

## K G W-The Morning Oregonian-492 Meters

PORTLAND. OREGON

PROGRAM FOR WEEK DECEMBER 2 TO DECEMBER 8

SUNDAY	
6:00 p.m. 7:00 p.m.	Church Services, provided by First Presbyterian Church. George Olsen's Metropolitan Orchestra in Dinner Program of Concert Music from Portland Hotel; Piano Solos by Beatrice Klapper.
MONDAY—	
11:30 a.m. 3:30 p.m. 7:30 p.m. 8:00 p.m.	Weather Forecast. Literary Program by Portland Library Association. Weather Forecast and Market Reports. Franklin High School Dramatic Department presents "Trial by Jury."
TUESDAY	
11:30 a.m. 3:30 p.m. 7:30 p.m. 8:00 p.m. 10:00 p.m.	Weather Forecast. Talk by Jeannette P. Cramer, Home Economics Editor of The Oregonian. Weather Forecast and Market Reports. Talk for Farmers, provided under direction of Paul V. Maris, Extension Director Oregon Agricultural College. Dance Music by George Olsen's Metropolitan Orchestra of the Portland Hotel.
WEDNESDAY-	
11:30 a.m. 3:30 p.m. 7:30 p.m. 8:00 p.m. 9:00 p.m.	Weather Forecast. Children's Program; Music by Children and Story by Aunt Nell. Weather Forecast and Market Reports. Concert by Rybka String Orchestra. Business Talk by James Albert, Local Representative of Alexander Hamilton Institute. Dance Music by George Olsen's Metropolitan Orchestra of the Portland Hotel;
10:00 p.m.	Intermission Solos.
THURSDAY-	
11:30 a.m. 7:30 p.m. 8:00 p.m. 10:00 p.m.	Weather Forecast. Weather Forecast and Market Reports. Dramatic Program by Red Lantern Players. Dance Music by George Olsen's Metropolitan Orchestra of the Portland Hotel; Intermission Solos.
FRIDAY	
11:30 a.m. 3:30 p.m. 7:30 p.m. 8:15 p.m.	George Olsen's Metropolitan Orchestra of the Portland Hotel in Studio
9:00 p.m.	Lecture on "Oregon Resources" by Alfred L. Lomax. Professor of Foreign Trade of University of Oregon.
10:30 p.m.	Hoot Owls with Pantages Frolic.
SATURDAY-	
11:30 a.m. 3:30 p.m.	Weather Forecast. Children's Program; Music by Piano Pupils of Lucille Cummings; Story by Aunt Nell.
7:30 p.m. 10:00 p.m.	and the second sec



### Brandes Table Talker, \$10.00 Exceptional Headsets, \$3.50

221/2 volt "B" Batteries, \$1.20

45 volt "B" Batteries, \$3.50

Single or double phone cords, 35c; Litz wire, No. 38, 20 strand, 4c a foot. Magnet wire, all sizes, all kinds. Unassembled, 2-foot loop, 85c. Rubber ear cushions, 50c pair.

### The Radio Stores Company 348 South Spring Near Fourth

### W F A A—Dallas News-Journal—475 Meters

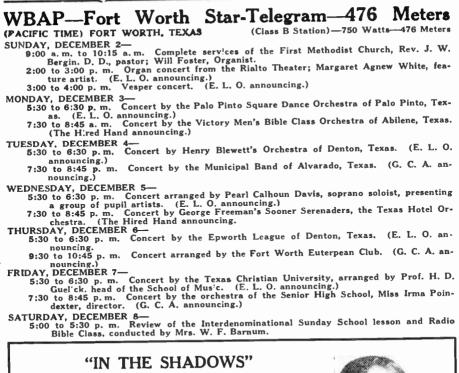
(PACIFIC TIME) DALLAS, TEXAS Station WFAA (working for all alike), 476 meters (630 kilocycles). MONDAY-10:30 to 11:00 a.m. Address—Judge E. B. Muse, "The Place of Amusements."
6:30 to 7:30 p.m. Tell Me This Club in varied recital demonstrating the work for young people done by The Dallas Journal. TUESDAY-10:30 to 11:00 a.m. Address—DeWitt McMurray, editor Semi-Weekly Farm News, in a medley of humor, pathos and wisdom. 6:30 to 7:30 p.m. Musical recital by the Mozart Choral Club, Earl D. Behrends, directing. 9:00 to 10:00 p.m. Orchestral music and violin choir by A. A. DeMond and assisting musicians. WEDNESDAY 10:30 to 11:00 a.m. Address by Oscar O. Touchstone, attorney, and music by the "Red Head Gal." Station will be silent for remainder of the day. THURSDAY-10:30 to 11:00 a.m. Address—Ray Morrison, Southern Methodist University, on "Education and Athletics." 6:30 to 7:30 p.m. Mrs. Albert Smith, soprano, and assisting musical artists in recital. FRIDAY-10:30 to 11:00 a.m. Address—Dr. Robert Stewart Hyer, Southern Methodist University, on the Sunday school lesson, "Outreach of the Early Church."
6:30 to 7:30 p.m. Band recital by the Western Union Telegraph Company's Boys' Band, 10:30 to 11:00 a.m. in popular music. SATURDAY-10:30 to 11:00 a.m. J. P. Comer, Southern Methodist University, in "Literary Lines," 6:30\_to 7:30 p.m. Orchestra from the North Texas State Teachers' College, Denton, Texas. 9:00 to 10:00 p.m. Mrs. May Zigenbein, pianist. SUNDAY-4:00 to 5:00 p.m. Radio Bible Class, Dr. William M. Anderson, Jr., pastor of the First Presbyterian Church, teacher; half-hour B'ble study and half-hour Gospel song.
7:30 to 8:00 p.m. Sacred song recital and brief address.
8:00 to 9:00 p.m. Jimmy Allen's Orchestra, Southern Methodist University boys, in popular dance music recital. DO YOUR CHRISTMAS SHOPPING EARLY

# Don't forget that promise you made yourself that you were going

to do your Christmas shopping early this year. There are so many arguments in favor of it and none against.

"Half the head phones in use are Murdock"





a new book of thirty thrilling detective stories by Detective Nick Harris

Proving

### WHY CRIME DOESN'T PAY

Many of these stories have been told to listeners of "Radio Land" by Mr. Harris over Anthony's KFl every Wednesday night. You'll like them. A fine Christmas present for your boy or girl.

Send \$2.00 today to Mail Order Department,

#### NICK HARRIS DETECTIVES

900 Pantages Bldg.

#### Los Angeles



## Make It a Radio Christmas! A complete set \$14.25

There is nothing in the world today, that money can buy, that will bring as much happiness to the home as this inexpensive radio set.

Costs nothing to operate. Can be installed anywhere. Come in for a demonstration.

CENTRAL RADIO COMPANY

618-87—710 Deldta Bldg.

426 S. Spring St., Los Angeles

# WOC-Palmer School of Chiropractic-484 Meters

SUNDAY, DECEMBER 2-11:30 a.m. Orchestra Concert (1 hour). Patriotic and sacred numbers by the P. S. C Orchestra. 5:00 p.m. Organ recital (11/2 hours), Erwin Swindell, organist. Sport news. 5.70 p.m. Church service: Rev. Emil F. Bergren, circulation manager, Augustana Book Concern, Rock Island, Ill. (Musical numbers to be announced.) Musical program (2 hours), Erwin Swindell, musical director. P. S. C. Or-chestra. Gerald M. Barrow, director. Frank Deegen, violinist: "Meditation," from "Thais," "Perfect Day," "Dream of the Shepherdess," "Berceuse." Mrs. 6:00 p.m. 9:00 p.m. Edward Applequist, soprano. MONDAY, DECEMBER 3-6:00 p.m. Musical program (1 hour), Erwin Swindell, musical director. Maysie Sher-man-Scherer, soprano; Mrs. Otto Klockau, contralto; Arthur Albrecht, pianist. TUESDAY, DECEMBER 4-(No broadcasting after 6 p. m. Tuesday-Silent night for WOC.) WEDNESDAY, DECEMBER 5-6:00 p. m. Organ recital, Erwin Swindell, organist. Mrs. Fred Warner, soprano: "Waters of Minnetonka," "Marcheta," "Morning Wind," "Maytime."
6:00 p. m. Musical program (1 hour), Erwin Swindell, musical director. Program by the Tri-City Harmony Colored Quartet and the All-Star Colored Male Quartet, of Rock Island, Ill. THURSDAY, DECEMBER 6-6:00 p.m. Musical program (1 hour). P. S. C. Orchestra, Gerald M. Barrow, director. Featuring V. B. Rochte, baritone soloist. FRIDAY, DECEMBER 7-Educational lecture: "Is the Retail Dealer a Necessity or a Nuisance?" by J. 5:00 p.m. W. Gamble, of the Standard Chemical Mfg. Co., Omaha, Neb. Musical program (1 hour), Erwin Swindell, musical director. P nished through courtesy of the Kennedy Music Co., of Dixon, Ill. 6:00 p.m. Program fur-SATURDAY, DECEMBER 8-7:00 p.m.

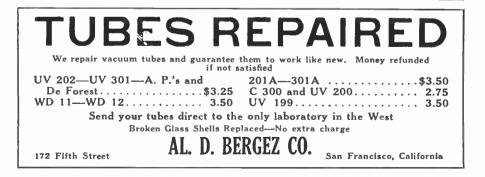
### **MURDOCK "SOLID" NO. 56 HEAD PHONES** Best at Any Price

# BURROUGHS RADIO CO.

**4615 MONETA AVENUE** 

Phone 2983-18 and representative will call

Sets from \$25.00 up All sets sold on easy terms



Davenport, Iowa-Pacific Time

Orchestra program (1 hour). P. S. C. Orchestra, Gerald M. Barrow, direc-tor. Featuring: "Red Hot Blues," "Hawaiiana," "Beautiful Rose," "The Old-Fash oned Homestead," "Sun Kist Rose," "She's Got Another Daddy." Popu-lar selections released through the National Association of Broadcasters, of which WOC is a member. V. B. Rochte, bartone soloist.

# K S D-St. Louis Post-Dispatch-546 Meters

	K D S WEEKLY PROGRAM—WEEK OF NOVEMBER 12TH Pacific Time WEEK OF NOVEMBER 26TH				
MONDAY-	and the Music breadcast				
6:00 p.m.	Vocal and Instrumental Specialties, Orchestra and Organ Music, broadcast direct from the Grand Central Theatre.				
9:30 p.m.	Program to be announced.				
TUESDAY-	Divon				
6:00 p.m.					
9:00 p.m.	Accompanist, Addresses by n. L. Wheethin address direct from Hotel Dance music played by Silverman's Orchestra, broadcast direct from Hotel Jefferson.				
WEDNESDAY-	· · · · · · · · · · · · · · · · · · ·				
5:00 p.m.					
9:00 p.m.					
THURSDAY—	and a second secon				
6:00 p.m.	Broadcasting the concert of the St. Louis Symphony Orchestra, Rudolph Ganz, conductor; Max Steindel, 'cellist; soloist; given at the Odeon.				
FRIDAY					
Silent.					
SATURDAY-	the second se				
5:30 p.m.	Orchestra concert, organ recital and vocal and instrumental specialties, broad- cast direct from the Missouri Theatre.				

Don't forget that promise you made yourself that you were going to do your Christmas shopping early this year. There are so many arguments in favor of it and none against.

## MURDOCK "SOLID" NO. 56 HEAD PHONES

#### **Best at Any Price**

## RADIO ARGENTITE Trade JUNIOR Mark

#### JOINOIR

THE MOST FOR YOUR MONEY

**Radio-Argentite Detectors** are scientifically adjusted to give full value to the delicate tone shading that it is so necessary to the ore from which all Radio-Argentite detectors are prepared, is the only known mineral that can be tempered in this manner. Be sure you get the genuine Radio-Argentite.

### CURRY & COUTELLIER LABORATORIES

2843 West Ninth Street

Los Angeles, Cal.

#### **RADIO HEADQUARTERS**

7430 Moneta Ave.

Los Angeles

# W M A Q—The Chicago Daily News Radio Program

Located on the Roof of the Hotel LaSalle, Chicago, III.—Wave Length 447.5
Week of December 3, 1923 (Subject to Change)
MONDAY-
2:30 p.m. To be announced. Monday night is silent night in Chicago.
TUESDAY
2:30 p.m. Program by pupils of Glenn Dillard Gunn School of Music.
5:00 p.m. Weekly Babson Statistical Report.
5:30 p.m. "Feast of Lights," Jewish Festival program.
6:30 p.m. W M O Q Dance Orchestra.
7:00 p.m. Hotel LaSalle Trio.
7:15 p.m. Program provided by Lyon & Healy.
WEDNESDAY—
11:00 a.m. Speeches broadcast from Chicago Assn. of Commerce luncheon.
2:30 p.m. Pupils of Cosmopolitan School of Music and Dramatic Art.
5:00 p.m. Miss Georgene Faulkner, the Story Lady, tells stories for children.
5:30 p.m. Weekly lecture from Northwestern University.
6:30 p.m. W. M. A. Q. Dance Orchestra.
7:00 p.m. Hotel LaSalle Trio.
7:15 p. m. Musical program by Mme. Sturkow-Ryder.
THURSDAY—
2:30 p.m. To be announced.
5:00-8:00 p.m. Wheat Council—talk on "Toast"—Rockwell Stephens, Auto Editor The
News.
6:30 p.m. WAA O Dance Orchestra.
7:00 p.m. Hotel LaSalle Trio.
7:15 p.m. University of Chicago Glee Club. FRIDAY—
2:30 p.m. Pupils of Bush Conservatory.
5:00 p. m. Weekly program arranged by Mrs. Frances M. Ford for "Wide Awake Club."
5:30 p.m. Weekly musical lecture by Mrs. Marx E. Oberndorfer.
6:30 p.m. W M A Q Dance Orchestra.
7:15 p.m. Program arranged by the Cosmopolitan School of Music.
SATURDAY
6:00 p.m. Harrison Technical High School Band.
7:00 p.m. Weekly musical review broadcast direct from the Chicago Theatre.
· · · · · · · · · · · · · · · · · · ·

# HEAR ONE TODAY CLEAR RADIO SPEAKER

# True Reproduction of Voice and Music Absolutely No Vibrations

Sweet, clear tones, no distortions or mushy sounds —good full volume without those rasping effects. Made of soundproof "**Parembo**," you get the entire strength from its special shaped throat and large bell-shaped mouth. Absolutely no metal parts. Extra large size, finished in grain leather effect. A big speaker at a little price. You'll want one when you see it.

# Distributed by PAREMBO SALES CO. 741 San Fernando Bldg. Phone Broadway 8365 Los Angeles, Cal.

Ask Your Radio Dealer, He Knows

50



Any radio set that works will give you a thrill the first time you listen in on the air, but the ambition to hear more and to hear further and better grows so quickly that you might as well buy the best in the beginning as in the end. The SLEEPER MONOTROL (at no higher—even at a lower price) will assure you the most perfect reception for every broadcast program that can possibly be heard through any three-tube set and many which could not be heard except through five-tube sets in any other type of circuit.

Complete with Loud Speaker, Batteries and Tube \$197.50

"Dealers Write for Proposition"

MOTOR CAR SUPPLY CO.

RADIO DEPARTMENT

Open Evenings Till 9 P. M. 920 South Broadway Telephone 826-063 Los Angeles, California

## ?????

In order that questions be answered promptly and accurately, write plainly, number your questions and make them as brief as possible.

TECHNICAL EDITOR.

#### HALL BERRINGER

Question No. 1.- Please tell me if a 23-plate condenser hooked up with a vario coupler would cut out any interference. It seems I get quite a bit of interference the way it is. All local stations come in at the same time.

C. R. FUNK.

59261/2 South Hoover St., Los Angeles.

Answer No. 1. A variable condenser and a vario-coupler can be used to increase the selectivity of your receiver. In using them, use the primary of the coupler in the aerial circuit and the secondary in the grid circuit. The variable condenser can be used in series with the antenna or shunted across the secondary of the vario-coupler.

Question No. 2.-1 want to thank you for the promptness of your question and answer department in answering a question 1 sent in a few weeks ago, and would also like to add my protest to the many going around about silent night on Mondays. Why is it that Radio K. F. I. can't keep silent one night a week like the Times. I know that the Times and Anthony are rivals, but when the listenersin are all (a majority) asking for a silent night, that is no time for Anthony to be contrary. I appreciate the good programs that K. F. I. broadcasts, but I think six nights a week is enough of this. GEORGE CARTER.

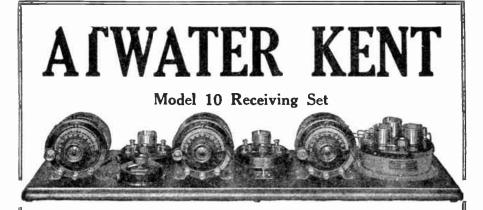
Answer No. 2.—It is impossible for us to say why K. F. I. does not observe the silent Monday night. No doubt Mr. Anthony has considered this, and has taken the matter up with the Examiner, the Herald and the Ambassador Hotel. Perhaps has contracts with his remote control stations will not allow this.

Question No. 3. We have been much helped by the questions and answers that appear in Radio Doings from time to time, and now I wish to ask a simple question, in hopes that you can advise if not help me.

Some time ago 1 put in a small Westinghouse Senior (1 tube type WD-11) radio set. My wife being sick at the time and unable to get out, she enjoys the several programs rendered very much, but she was particularly interested in the Lord's bay program put on by K. J. S., the Bible Institute of Los Angeles. Yet every time they come on the air we get them almost perfectly for a matter of five or ten minutes sometimes, sometimes only for two or three minutes, then someone comes on there, sends a few letters in code, then seems to hold his key down or the generator run, something that makes a sort of buzzing noise that drowns out K. J. S. so we can only get a word now and again. Now K. J. S. is not on the air so much of the time that the commercial people need to butt in in order to do their work, as they are only on one hour on Lord's Day at noon and one hour from 6 to 7:30 p. m. and again one hour from 8 to 9 p. m. and fwo

(Continued on Page 43)





THE Atwater Kent Model 10 Receiving Set is an excellent example of modern Radio engineering. It includes 2 stages of tuned radio frequency amplification, Detector, and 2 stages of audio frequency amplification.

The instruments included are 3 Variable Condensors, 3 Radiodyne Transformers, 2 Tube Units, Potentiometer, and Detector, 2 stage Amplifier.

Exceptional selectivity, volume on D. X. signals, efficiency, and great ease of operation are accomplished through the circuit arrangement used. Its range of operation includes all wave lengths in the broadcast band.

With this set it is very easy to return to the dial settings for any given station once they are recorded. It is designed for tubes using  $\frac{1}{4}$  ampere, with the exception that a 1-ampere detector tube may be used, if desired.

No. 4340 Model, 10 Receiving Set, as above,

wired.....\$88.00

# Electric Equipment Co.

1240 South Hope St.

Telephone 873-921

Los Angeles, Cal.

# ????

(Continued from Page 41)

hours on different nights during the week. We got much of the same trouble when the sermons are on the air from K. J. S. and K. F. I. Now it seems to me that there might be some way to withhold commercial work for a matter of, say, two hours from 10 to 12 a. m. and from 6 to 9 p. m. on the Lord's Day if at no other hours during the entire week. Or has the devil got so much of a hold on even radio that he will not permit of five hours in a whole week for other than jazz and the almighty dollar getter to have the use of the air any of the time? If it is impossible to tune out those interferences, and one must listen to that sort of thing or nothing, I feel that it would be more profitable to put the set on the shelf for good. But as this trouble only occurs during these particular hours, it seems as if it were intentional on the part of someone who is afraid to listen to the truth concerning his own soul and God, and makes this interference on purpose to drown out K. J. S. and all others where the truth is expounded, so that no one can hear.

Please answer in Radio Doings, that all listeners in can see what to expect on this subject. FRANK J. THOMPSON, U.S.N.

4647 Hamilton St., San Diego, Cal.

Answer No. 3.—It may be of interest to you to know that the United States Naval Station, call letters, N. P. L., at San Diego, is causing this interference. We understand that the Navy is now working on plans to eliminate the interference you experience. All we can do is suggest that you make your receiver as selective as possible.

Question No. 4.—Would you please answer the following question, either in Radia Doings or by mail? I am very interested in the new Autoplex receiver and would like to know if it is practical. They say it will bring in stations on the loud speaker which are within its range. Would its range be equal to the common regenerative two circuit receiver. ARTHUR T. SNYDER,

Springfield, Idaho.

Answer No. 4.—We do not know anything about the new receiver you speak of. The radio publications are full of new circuits and it is impossible for us to try out all of them in order to talk intelligently about them. Any good receiver will bring in stations within its range on the loud speaker.

Question No. 5.—In your issue of Radio Doings dated September 9-15, you published an article (Crystal Reception), by Hall Berringer, in which you state that the circuit mentioned can be obtained through Radio Doings. I wish to get a good crystal circuit that will cut out interference and get some distance. Kindly inform me as to how I may obtain this circuit. WM. SIMPSON,

1031 West 25th St., Los Angeles.

Answer No. 5.-This circuit may be obtained at Radio Doings.

# **TUBES REPAIRED**

Detectors \$2.75—Amps. \$3.25. All Work Guaranteed Good as New. No Charge for Broken Glass. Discount to Dealers. 15-Day Service Now.

## LESTER RADIO SHOPPE

140 So. Spring St.

Metropolitan 4832

Open Evenings

## A MESSAGE FROM M. A. R. S.

A One-tube Reflex Set, All Complete in Cabinet, with Tube Batteries, Phones and Loud Speaker, **\$65** 

MANUAL ARTS RADIO & ELECTRIC SHOP

4154 S. Vermont Ave. Phone Vermont 7836 Los Angeles, Calif.



#### Charges Radio and Auto Batteries at Home Over Night for a Nickel

For a friend who owns a radio set or auto, what would be more appropriate than a gift which would eliminate the inconvenience and expense of taking his battery to a service station every time it requires recharging? The



is such a gift, appropriately dressed up in a beautiful package. It charges any Auto, Radio or "B" storage battery in the quickest, simplest and most efficient manner possible. Connects to any lamp socket—operates silently—requires no watching. Fully automatic in operation—absolutely safe. Beautifully finished in mahogany and gold. Unqualifiedly guaranteed. Over 125,000 already in use.

At all good dealers, \$18.50 complete (\$25.00 in Canada,—no extras to buy.

FREE: Ask your dealer or write direct for free copy of Homcharger list of broadcasting stations and GOLD SEAL bulletin.



Manager Manufacturers of Vibrating Rectifiers in the World ~

#### WESTERN DISTRIBUTOR:

#### BERTRAM SMITH

400 San Fernando Bldg., Los Angeles, Cal.

Shipments to all points west of Rockies from Los Angeles stock.

# The Get-Together Banquet

The "get-together" banquet of the radio trades, held under the auspices of the Radio Trades Association of Southern California, at The Oaks Tavern. Los Angeles, proved a great success. One hundred and seventythree of those engaged in the radio business in its various branches were present. Of these, over fifty were from out of town and represented nearly every city and town in Southern California.

The order of business following the banquet was as follows:

 Address of Welcome—President Dennis.

2. Guest of Honor—J. C. Johnson, General Manager American Radio Exposition Company of New York.

3. Association -- Secretary Farquharson.

4. National Radio Week - H. C. Charles, Editor Radio Doings.

5. Radio and Music Associated J. W. Boothe, Barker Brothers.

6. "Uncle John" Daggett - KHJ. The Times.

7. Some Evils That Can Be Avoided. E. P. Tucker, Wiley B. Allen Co.

8. The Association from the Manufacturer's Viewpoint—H. F. Jefferson, Kilbourne & Clark Manufacturing Co.

9. The Jobber's Viewpoint Al Myers, Leo J. Meyberg Co.

10. The Out-of-Town Dealer's Viewpoint-S. Hastings, Fallon & Co., Santa Barbara,

 Membership — A. E. Schifferman, Newbery Electric Co.

#### DO YOUR CHRISTMAS SHOPPING EARLY

# **Boost Radio to Congress**

Indications are that the U. S. Bureau of the Budget will only approve of appropriations amounting to one-sixth of the Department of Commerce's lowest estimate as necessary for the administration of radio matters during the next fiscal year. With all forms of radio activity increasing, the scope of the Radio Section has been extended until several times the work is being done by the same field force and the same personnel in the Washington office, that existed before broadcasting and extensive amateur activities began. The department needs both more men and money.

What the Budget has allotted, in addition to the regular annual appropriations, is not enough to secure the services of one additional clerk in each of the nine radio districts, where several assistant radio inspectors are needed, besides funds for tests, travel and office work. There are no funds for an increase in the Washington headquarters, where thousands of licenses, complaints and reports of different kinds are handled every week by an inadequate force.

An appropriation of \$215,000 was asked for radio supervision in the fiscal year ending June 30, 1925, which was only \$76,000 over the current appropriations. The increase was felt to be absolutely necessary for conducting the work of inspection of ships and shore stations, licensing of amateurs and commercial operators, and administration of radio in general. Later, officials of the Department, under Budget pressure, cut this figure to an increase of approximately \$60,000, but the Budget is understood to insist that about \$149,000 is sufficient for the next year, an increase of only \$10,000.

Funds for radio research, experimentation and tests at the Bureau of Standards are also essential, and should be provided by Cougress to insure adequate development in all lines of radio communication.

Radio Week is a good time to boost radio and get Congress interested. Manufacturers, led by the representatives of the Crosley Company of Ohio, suggest that all fans urge their Senators and Congressmen to provide sufficient funds for the proper functioning of Government radio supervision and development, so that America may keep in the fore of wireless communication



# "Out of the Air"

Chief Supervisor of Radio W. D. Terrell of the Department of Commerce, who visited Los Angeles lately in his official capacity, was the guest of the Radio Trades Association at a luncheon at the Alexandria Hotel. He reported marvelous progress in radio all over the country both as to broadcasting and the class of equipment during the year. Many of the prominent dealers, manufacturers, jobbers and broadcasters were present to extend him a welcome.

We welcome a new 500-watt Class B station on the air, KLX, the Oakland Tribune. We congratulate this station on its excellent modulation. The Pacific Coast is now well served with Class B stations and the radio public should be entertained all through the day.

C. E. Morrison is now director in charge of KPO. Mr. E. J. Martineau, the late director, has gone into business for himself as a radio engineer in San Francisco.

We have had so many inquiries about broadcasting stations in Mexico City that we have procured a list of these with time they are on the air, Pacific time: Tuesday-CYB. 6:00 to 7:30 P. M.

Thursday and Friday-CYL. 7:30 to 9:00 P. M.

Saturday-CYB. 6:00 to 7:30 P. M.

Cupid has been busy amongst radio people. Mr. I. T. Perdun, business manager for Radio Doings, and Mr. O. E. Garretson of Radio Sales & Service, Los Angeles, have taken unto themselves wives. Radio Doings extends to both of these gentlemen very hearty congratulations and wishes them happiness for all time.

Amongst the thousands of dealers that competed for the prizes offered by The E. T. Cunningman Tube Company, Los Angeles was able to land first prize. Lester's Radio Shop was the successful exhibitor and we congratulate him.

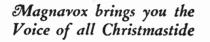
The Workrite plant in the Stimson Building, Los Angeles, is now in operation. Four automatic machines are in place and they have a capacity of one hundred sets per week. Cabinets will also be manufactured.

William W. Wright, late manager of the Los Angeles branch of the H. Earl Wright Company, has opened a very attractive radio store, known as Hollywood's Radio Studio at 709 North Western Avenue, Hollywood.

Difficulties in broadcasting in India are many, the greatest arising out of the diversity of languages. A projected super-broadcasting station in Delhi was considered impracticable when it was found that a news program of 500 words. if translated into the many languages of India, would take 24 hours to transmit. Another difficulty with broadcasting is the enormous distances in the country.

When we hear something exceptionally good over the air we feel that we cannot overlook mentioning it. The Russian String Quartette that played for KHJ on Sunday, November 25th, on the evening program, rendered their selections with such skill and feeling that everyone who heard them could not but feel that they were listening to artists of the highest caliber. We hope we shall have the pleasure of listening to them again.

KFHJ, Fallon & Co., Santa Barbara, starting on Wednesday, December 5th. will broadcast at midnight initiation Benevolent Order of Sundodgers. This will be con'inued on every Wednesday until further notice. Their wave length is 360 meters. Our good friend, Mr. S. Hastings, is the announcer and you therefore can be assured something novel. Those who do not know Mr. Hastings by name will remember him as the "janitor" over KHJ.



THE Art of Radio Reproduction is enjoyed by every Magnavox owner. Despite the ever-increasing quality and variety of Broadcast Programs, many a receiving set gathers dust unlamented because of insufficient sensitivity or an unsatisfactory "loudspeaker."

Every Magnavox owner is a master of the art of radio reproduction—the results obtained by the use of Magnavox Reproducers and Power Amplifiers cannot be equalled with apparatus constructed in the ordinary way.

The special attention of dry battery receiving set owners is called to the new Magnavox Reproducer M1, illustrated above.

#### Magnavox Reproducers

R2	with	18''	horn		\$60.00
<b>R3</b>	with	14"	horn		35.00
M1	for d	ry t	oattery	sets	35.00

#### **Combination Sets**

A1-R Reproducer and 1-stage Amplifier . . 59.00 A2-R same with 2-stage 85.00

#### **Power Amplifiers**

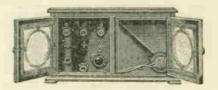
Al-One-stage	•	27.50
AC-2-C-Two-stage	•	55.00
AC-3-C-Three-stage	•	75.00

Magnavox Products can be had of good dealers everywhere.

#### THE MAGNAVOX CO. Oakland, Cal.

New York Office: 370 Seventh Avenue Perkins Electric Ltd.; Toronto, Montreal, Winnipeg, Canadian Distributors

# A THE ACE 3C E Consolette



## Complete with All Accessories—Only \$178.00

The new ACE 3C is the neatest, most efficient regenerative radio broadcasting receiver on the market.

The new ACE 3C leaves no unsightly batteries or other accesosries spread about the room.

The new ACE 3C is completely self-contained in a mahogany cabinet—a beautiful piece of furniture.

The new ACE 3C is simple to tune.

Send for a Descriptive Circular Or Have Your Dealer Demonstrate the ACE 3C in Your Home

# **IT SPEAKS FOR ITSELF**



Southwestern Wholesale Distributors

363 New High St.

Los Angeles, Calif.